

East Bench Canal Company

Application Packet

Guide for Application, Review, and Approval Process with
East Bench Canal Company
For Encroachment upon Easements & Facilities

East Bench Canal Company
General Instructions

This packet is intended to assist Applicants in working with East Bench Canal Company (EBCC). All Applicants are required to obtain permission from EBCC to do work affecting EBCC facilities. EBCC facilities mainly include a main canal and 13 laterals.

Any desired development that will affect EBCC facilities must go through the Application, Review, and Agreement Process. This includes any time that work is done within EBCC easements. Franson Civil Engineers (Franson Civil) is the engineering firm for EBCC. Franson Civil will review all plans that affect EBCC facilities. This review process is in-depth and may be lengthy depending on the quality of the plans submitted for review. The following is a guideline for the Application, Review, and Agreement Process affecting EBCC facilities:

- The Applicant uses the guidelines in the application packet to design the affected facilities to EBCC standards.
- Franson Civil receives the **application, application fees, and drawings**. The review process will not begin until these items have been received.
- Franson Civil will **review** the drawings, including the plat map. A meeting will be held with Franson Civil and EBCC to discuss the development. A redline comment letter will be sent to the Applicant with a checklist of items that must be addressed prior to approval (2-3 weeks for each review). The reviews will repeat as explained above until all items from the checklist have been addressed and plans are to EBCC standards. This typically takes 2-3 reviews. **If the standards in the packet are strictly adhered to, and the improvements to the facilities are well designed, the time involved in this review process can be greatly reduced.**
- **Bonding** is required by EBCC. When the drawings are acceptable, the Applicant will provide a cost estimate to Franson Civil for the construction of EBCC facilities so the bonding amount can be determined. Once the bonding amount has been determined, reviewed and accepted by EBCC, the Applicant will be notified of the amount. Once the bonding amount is set, the Applicant should have their bank prepare the bond using a template that will be provided by Franson Civil.
- **Easements** for EBCC facilities must be recorded with the Utah County Recorder. Easements shall be shown on the Plat Map for the subdivision. Proof of record for the irrigation easements must be submitted to Franson Civil before the encroachment agreement will be prepared. Easements shall be in the name of East Bench Canal Company.
- An **Encroachment Agreement** will be prepared between the Applicant and EBCC once all of the above-mentioned items have been completed. An electronic copy of the agreement will be sent to the Applicant for signature, or, if preferred, three copies of the agreement will be sent to or arranged for pick up by the Applicant for signature. If the Applicant desires to make any changes to the Agreement, these changes will need to be discussed and approved by the EBCC President and Board.
- Once the encroachment agreement has been signed by the Applicant and EBCC, permission has been granted to the Applicant to begin the construction phase in accordance with the agreement.

East Bench Canal Company
General Instructions

- The Applicant is required to notify EBCC and Franson Civil at least 24 hours in advance of beginning construction on irrigation facilities, as outlined in the agreement.
- Representatives from Franson Civil and/or EBCC will make site visits for construction review of the facilities to see construction progress. It is the responsibility of the Applicant to provide inspection of the work and to ensure the work is completed in accordance with the agreement.
- After construction is complete, a **final walkthrough** will be done by Franson Civil and EBCC to identify any final items that need to be completed before work is accepted by EBCC. A **punch list** will be prepared and sent to the Applicant listing items required, as applicable.
- If construction changes alter where EBCC facilities were previously installed and the easement was already recorded, an updated easement document will need to be recorded prior to acceptance by EBCC.
- When all these items are complete, EBCC will send a **letter of acceptance** to the Applicant stating the irrigation company facilities are complete.

Enclosed in this packet are:

- Large Subdivisions – Application Type 1
- Small Subdivisions (2 Lots) – Application Type 2
- Development Design Checklist (assist Applicant in designing plans to EBCC standards)

EAST BENCH CANAL COMPANY

LARGE SUBDIVISIONS – APPLICATION TYPE 1

Application for Agreement to Encroach and Construct within
East Bench Canal Company (EBCC) Right-of-Way or Easement

1. Applicant for Encroachment Agreement (Applicant): _____

Mailing Address: _____
Contact Person: _____
Telephone Number: _____
Email: _____
2. Legal Name of Owner for Agreement: _____
Owner Mailing Address: _____
Signatory Name: _____
Telephone Number: _____
Email: _____
3. Contact Person (if different than #2): _____
Mailing Address: _____
Telephone Number: _____
Email: _____
4. Engineering Company: _____
Mailing Address: _____
Telephone Number: _____
Contact Person: _____
Email: _____
5. Brief Description of Proposed Construction and Encroachment on EBCC Facilities (include location and subdivision name, if applicable): _____

6. Proposed start date: _____ Proposed completion date: _____
7. Attach two (2) 11x17 copies of plans/design drawings for the proposed construction. Also, email a digital plan set to Franson Civil Engineers (see #9). Plans shall be drawn to EBCC standards. A Design Checklist is available to assist engineers in designing to EBCC standards.
8. Attach a check for \$12,000 for the application and review fee. The application fee will be used by EBCC for purposes of administration, coordination, engineer review, preparation of agreements, construction review, legal guidance, and any other expenses it incurs related to this application. If costs incurred by EBCC are greater than the application fee, the Applicant will be responsible to reimburse EBCC for the remainder of the expenses.

Please make all checks payable to: **East Bench Canal Company.**

9. Send application, plans, and application fee by mail or email to:

Franson Civil Engineers
Attn: Canal Reviews
1276 South 820 East, Suite 100
American Fork, UT 84003
Email: encroachment@fransoncivil.com

10. The following persons are available for consultation:

EBCC Office	801-376-9790	
Joe Olsen	801-362-9493	EBCC President
Patricia Ayaa	801-756-0309	Franson Civil Engineers

NOTES:

1. The EBCC bonding requirements are as follows: Bonding will be 110% of the total cost of irrigation facilities. Upon completion of construction, approval by EBCC, and successful delivery of water through the system, 100% of the bond will be released. One year after the project has been accepted and approved by EBCC, and pending no problems with the facilities, the remaining 10% of the bond will be released. All bond releases are subject to approval by EBCC.
2. Easements for EBCC must be recorded with the Utah County Recorder.
3. Starting construction without prior written approval in the form of an Encroachment Agreement from EBCC may result in an additional fee assessment of up to \$10,000 for encroachment from October 31 – March 1 and up to \$50,000 for encroachment from March 1 – October 31, and a project cease and desist letter. This fee may be taken from the bond if the Applicant does not pay within 30 days upon receipt of a written invoice.
4. If costs incurred by EBCC are greater than the application fee, the Applicant will be responsible to reimburse EBCC for the remainder of the expenses. These additional costs may be taken from the bond if the Applicant does not pay within 30 days upon receipt of a written invoice. If costs incurred by EBCC are less than the application fee, a refund will be given back to Applicant, upon written request at the end of the project.
5. The review process will not begin until the application fee is paid.
6. This application is valid for 6 months from the date it is submitted. The Encroachment Agreement must be signed within this 6-month period. Once the Encroachment Agreement is signed, the Applicant has one year to complete work on irrigation facilities.
7. This application cannot be sold to other parties. If the Applicant chooses to sell the property associated with this application, the application is voided, and the new owner is required to begin the application process again.

I have read, understood, and agree to the terms of this application.

Signature of Applicant

Printed Name/Title

Date

EAST BENCH CANAL COMPANY

SMALL SUBDIVISIONS (2 LOTS) – APPLICATION TYPE 2

Application for Agreement to Encroach and Construct within
East Bench Canal Company (EBCC) Right-of-Way or Easement

1. Applicant for Encroachment Agreement (Applicant): _____
Mailing Address: _____
Contact Person: _____
Telephone Number: _____
Email: _____
2. Legal Name of Owner for Agreement: _____
Owner Mailing Address: _____
Signatory Name: _____
Telephone Number: _____
Email: _____
3. Contact Person (if different than #2): _____
Mailing Address: _____
Telephone Number: _____
Email: _____
4. Engineering Company: _____
Mailing Address: _____
Telephone Number: _____
Contact Person: _____
Email: _____
5. Brief Description of Proposed Construction and Encroachment on EBCC Facilities (include location and subdivision name, if applicable): _____

6. Proposed start date: _____ Proposed completion date: _____
7. Attach two (2) 11x17 copies of plans/design drawings for the proposed construction. Also, email a digital plan set to Franson Civil Engineers (see #9). Plans shall be drawn to EBCC standards. A Design Checklist is available to assist engineers in designing to EBCC standards.
8. Attach a check for \$8,500 for the application and review fee. The application fee will be used by EBCC for purposes of administration, coordination, engineer review, preparation of agreements, construction review, legal guidance, and any other expenses it incurs related to this application. If costs incurred by EBCC are greater than the application fee, the Applicant will be responsible to reimburse EBCC for the remainder of the expenses.

Please make all checks payable to: **East Bench Canal Company.**

9. Send application, plans, and application fee by mail or email to:

Franson Civil Engineers
Attn: Canal Reviews
1276 South 820 East, Suite 100
American Fork, UT 84003
Email: encroachment@fransoncivil.com

10. The following persons are available for consultation:

EBCC Office	801-376-9790	
Joe Olsen	801-362-9493	EBCC President
Patricia Ayaa	801-756-0309	Franson Civil Engineers

NOTES:

1. The EBCC bonding requirements are as follows: Bonding will be 110% of the total cost of irrigation facilities. Upon completion of construction, approval by EBCC, and successful delivery of water through the system, 100% of the bond will be released. One year after the project has been accepted and approved by EBCC, and pending no problems with the facilities, the remaining 10% of the bond will be released. All bond releases are subject to approval by EBCC.
2. Easements for EBCC must be recorded with the Utah County Recorder.
3. Starting construction without prior written approval in the form of an Encroachment Agreement from EBCC may result in an additional fee assessment of up to \$10,000 for encroachment from October 31 – March 1 and up to \$50,000 for encroachment from March 1 – October 31, and a project cease and desist letter. This fee may be taken from the bond if the Applicant does not pay within 30 days upon receipt of a written invoice.
4. If costs incurred by EBCC are greater than the application fee, the Applicant will be responsible to reimburse EBCC for the remainder of the expenses. These additional costs may be taken from the bond if the Applicant does not pay within 30 days upon receipt of a written invoice. If costs incurred by EBCC are less than the application fee, a refund will be given back to Applicant, upon written request at the end of the project.
5. The review process will not begin until the application fee is paid.
6. This application is valid for 6 months from the date it is submitted. The Encroachment Agreement must be signed within this 6-month period. Once the Encroachment Agreement is signed, the Applicant has one year to complete work on irrigation facilities.
7. This application cannot be sold to other parties. If the Applicant chooses to sell the property associated with this application, the application is voided and the new owner is required to begin the application process again.

I have read, understood, and agree to the terms of this application.

Signature of Applicant

Printed Name/Title

Date

Project: _____

Engineer: _____

Date: _____

DEVELOPMENT DESIGN CHECKLIST

This checklist is intended to assist engineers in designing projects to East Bench Canal Company (EBCC) standards. All projects seeking acceptance by EBCC must be designed to these standards. When used correctly, this checklist will expedite the review and encroachment agreement process. Not all items on this checklist will be applicable to every project.

Neither EBCC nor Franson Civil Engineers (Franson Civil) will have responsibility for design or construction of Applicant's facilities. It is the responsibility of the Applicant and their engineer to design the project to EBCC standards. No approval or acquiescence by EBCC or Franson Civil will operate as a waiver or modification of EBCC standards.

EBCC Typical Drawings (Typical Drawings) are available for reference and are to be used as design examples. Typical Drawings, being design examples, do not represent an actual site-specific design and are not to be directly included in the project plans. Final development drawings must be designed and prepared by a licensed professional engineer.

The Applicant will install the facilities that are constructed through the application process with no interruption of EBCC operations.

Note: This checklist is updated when standards are amended. Checking for the latest version of this checklist at www.fransoncivil.com/canal-applications will ensure the most up-to-date information. EBCC reserves the right to make exceptions to the standards or impose other requirements, dependent upon the Applicant's project.

GENERAL

- ☐ Appropriate application must be filled out and all application fees submitted.
- ☐ All drawings must be stamped, signed, and dated by a licensed professional engineer and must be professionally designed and drafted to current engineering standards. Drawings may be stamped after they are ready for the encroachment agreement.
- ☐ Show all existing irrigation facilities affected by the development.
- ☐ Show new location of all ditches. All open channel ditches must be piped.
- ☐ Submit Plat Map; all EBCC facilities must have recorded easements (see Easements section).
- ☐ All streets must be labeled properly.
- ☐ Before submitting drawings to Franson Civil, please review and verify that all notes, references, and labels are correct and accurate.
- ☐ Bonding is required on all EBCC facility improvements. After drawings have been deemed acceptable by Franson Civil, please submit a detailed cost estimate of construction (materials and labor) of EBCC facilities. Once this has been checked, the bond amount will be set.

- ☐ Notes to be added to the drawing set under heading “East Bench Canal Company (EBCC) Notes:”
- Applicant must notify Franson Civil Engineers (Franson Civil) and EBCC at least 24 hours before construction on EBCC facilities. Call Kyle DeVaney with Franson Civil at 801-756-0309 and J. Merrill Hallam with EBCC at 801-376-9790. Failure to do so may result in a \$10,000 fine.
 - All construction must be done to EBCC standards.
 - EBCC contact during construction: Kyle DeVaney, 801-756-0309.
 - Work cannot interfere with delivery of irrigation water. Construction activities that affect EBCC facilities must take place between October 31st and April 1st.
 - It is the responsibility of the contractor to protect the work site. Any damage to the canal corridor caused by construction activities will be the responsibility of the contractor and Applicant.
 - All backfill materials shall be compacted to a minimum of 95% standard Proctor density.
 - Applicant is required to perform compaction testing at Applicant’s cost. If requested, compaction test results shall be submitted to Franson Civil Engineers. All failed material shall be removed and compacted to specifications. Testing must be performed by a licensed soils lab.
 - All concrete used in construction shall have a minimum compressive strength of 4,000 psi. The concrete mix shall include between 5% and 7% air entrainment.
 - Apply Swellstop, Waterstop RX, or EBCC Engineer-approved equivalent to all concrete cold joints.
 - PVC, Waterstop, or equivalent is required in all joints of cast-in-place concrete to prevent seepage between the surfaces.
 - Fences disturbed during construction activities must be replaced and returned to pre-construction condition, or better.
 - If any EBCC facilities are located during construction that are not identified on the drawings, Applicant shall work with EBCC through drawing reviews and then shall perform what work is required to cause the EBCC facilities to remain functional for use by EBCC. All work shall be to EBCC standards. All costs are the responsibility of the Applicant.
 - Neither EBCC nor Franson Civil can verify the location of underground facilities. Blue Stakes should always be called before digging (1-800-662-4111).

PIPES

- ☐ EBCC standards require fused high density polyethylene (HDPE) pipe with a minimum of ¾-inch wall thickness.
- ☐ Because HDPE is being used, the pipe needs to be restrained entering the cleanout boxes. Please provide detail of a thrust restraint. A commonly used restraint is electro-fusing flex

restraints onto the HDPE pipe and encasing it in concrete. Please add a note and a detail for this.

- ☐ All pipes on all drawings must be specifically labeled for pipe type and size (i.e. 30-inch HDPE Pipe DR32.5). Specify inside diameter, pressure rating, etc.
- ☐ Any pipe replacing a ditch shall have a minimum inside diameter of 30 inches.
- ☐ All pipe sizes must be designed to carry sufficient flow for irrigation demands with 20% additional capacity for freeboard/emergencies. Coordinate with Franson Civil for flow requirements before beginning design of irrigation facilities.
- ☐ Plan and profile view of each pipe is required.
- ☐ Under roadways – trench detail is required showing bedding detail. EBCC standards require bedding 6 inches below pipe and 6 inches above, using a minimum of $\frac{3}{4}$ -inch clean crushed rock unless specified otherwise by manufacturer.
- ☐ Yards, fields, etc. – trench detail is required showing bedding detail. EBCC standards require bedding 6 inches below pipe up to the springline, using a minimum of $\frac{3}{4}$ -inch clean, crushed rock unless specified otherwise by manufacturer.
- ☐ “Irrigation” marking tape shall be installed 18 inches above the pipe to help protect pipe from future excavations.
- ☐ Irrigation cleanout boxes are required every 500 feet, minimum, and at all alignment changes.
- ☐ Notes to be added to the drawing set under heading “East Bench Canal Company (EBCC) Notes:”
 - All new pipes must be documented by video camera after installation and backfill. Any problems with joints, levels, slopes, etc. discovered by the video must be repaired. A digital copy of the video shall be submitted to Franson Civil.
 - Prior to backfilling of pipes, the contractor must notify Kyle DeVaney, P.E., of Franson Civil Engineers so a GPS survey of the location and elevation of the installed pipelines can be performed.
 - Pipes or other utilities running parallel to the irrigation pipe in a shared easement shall be placed a minimum of 5 feet horizontally from the irrigation pipe.
 - Pipes crossing perpendicularly over or under the irrigation pipe shall have a minimum 1-foot vertical clearance.
 - Pipes entering boxes shall be concreted on the outside and grouted on the inside.

IRRIGATION/CLEANOUT BOXES

- ☐ Detail drawings are required for irrigation boxes.
- ☐ All boxes must be correctly labeled showing size and dimensions.
- ☐ Boxes must show all pipes entering and exiting.
- ☐ Boxes shall have a minimum inside dimension of 4-feet by 4-feet. There shall be a minimum of 6 inches on each side of the pipe to the edge of the box.

- ☐ Boxes must be labeled to show distance between pipe and bottom of box (typically 6 inches).
- ☐ Boxes must show all gates with gate detail or specifics as to gate type, size, flow direction, etc. Waterman C-10 canal gates with a minimum of 24-inch hand wheels are required on all improvements.
- ☐ Lid/grate detail required:
 - Solid lids marked “IRRIGATION” are required when debris and soil can enter.
 - Grates should be used on diversion boxes with gates and where debris will not enter.
- ☐ Boxes are required at each direction change and/or on each side of a road crossing, and where two pipes of a different type come together.
- ☐ Boxes shall have a metal sign attached to the grate that reads:

Property of East Bench Canal Company
 Irrigation Box May Not Be Fenced Within Property
 Company Must Have Access From City Street

- ☐ Notes to be added to the drawing set under the heading “East Bench Canal Company (EBCC) Notes:”
 - Knock-out boxes are not allowed. All boxes shall be pre-cast with cored openings for the pipes or shall be cast-in-place.
 - Irrigation boxes shall not be completely buried. They shall extend 6 inches above the surface of the final grade. Any existing boxes that do not extend to the final grade surface shall be raised 6 inches above final grade.

INLET AND OUTLET STRUCTURES

- ☐ Concrete flared end sections are required (pre-fabricated or cast-in-place) where a pipe will connect to a soil-lined ditch. Where a pipe will connect to a concrete-lined ditch, cast-in-place concrete shall be used and formed as a gradual transition from the pipe to the ditch.
- ☐ Trash racks are needed for all inlets from open ditches showing:
 - Spacing details: 4-inch spacing on center for most inlets (3.75-inch clear distance) and 8-inch spacing on center (7.5 clear distance) for pipes 36 inches or greater in diameter.
 - Slope 2:1 (H:V) or flatter.
 - Mounting details.
 - See EBCC Standard Drawings for additional design requirements.

- ☐ If transitioning to or from a soil-lined ditch, the detail should show riprap appropriately designed to protect the structure:
 - Riprap sized for velocities.
 - Appropriate length and location for riprap.
- ☐ Notes to be added to the drawing set under the heading “East Bench Canal Company (EBCC) Notes:”
 - Canal floor and embankment material removed for excavation shall be replaced with a 12-inch minimum thickness of 10^{-6} cm/sec permeability clay material, compacted to 95% standard Proctor density in 6-inch minimum lifts.
 - Canal embankment shall be shaped to match the existing canal prism.

EASEMENTS

- ☐ Easements are required to be recorded with the Utah County Recorder for all EBCC facilities:
 - Plat Maps are best to have these easements recorded.
 - If the plat has already been recorded, the owner can grant the easement with a legal description and have this recorded. Provide the legal description to Franson Civil and an easement agreement will be prepared and sent for signatures.
 - Proof of the record must be submitted to Franson Civil.
- ☐ Easements are 20-feet wide minimum, centered over the pipe for laterals and will be determined on a case-by-case basis for the main canal. Easements shall be in the name of the East Bench Canal Company.
- ☐ Notes to be added to the Plat Map under the heading “East Bench Canal Company Notes:”
 - No trees or shrubs in East Bench Canal Company easements.
 - No telephone boxes or power boxes in East Bench Canal Company easements.
 - Fences disturbed during construction activities must be replaced and returned to pre-construction condition or better.
 - Irrigation boxes may not be fenced in yards. Direct access (not through fences) must be provided to East Bench Canal Company from city streets.